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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,304

08/26/2003

James C. Beattie

2542-0412

2608

7590

02/21/2006

Timothy J. Klima  
Harbin King & Klima  
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Washington, DC 20003

EXAMINER

LUONG, VINH

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/647,304	BEATTIE, JAMES C.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vinh T. Luong	3682	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 12,13,27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-28 are subject to restriction and/or election requirement.


### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**Vinh T. Luong**  
**Primary Examiner**

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Attachment</u> .                       |

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1. This application contains claims directed to the following patentably distinct species: the species of Fig. 2, the species of Fig 3, and the species of Fig 4. The species are independent or distinct because, *e.g.*, the species of Fig. 3 comprises and claim 13 recites the mutually exclusive characteristics “a seal,” and the species of Fig. 4 comprises and claim 12 recites the mutually exclusive characteristic “markings.” See MPEP § 806.04(f).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

2. Applicant is advised that the reply to this requirement to be complete must include: (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143); and (ii) identification of the claims encompassing the elected invention.

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The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, *if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.*

3. During a telephone conversation with Mr. Timothy Klima on February 14, 2006, a provisional election was made without traverse to prosecute the invention of species of Fig. 2, claims 1-11 and 14-26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12, 13, 27, and 28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention/species.

4. The drawings are objected to because each part of the invention, *e.g.*, the jam nut-engaging portion in claim 14 should be designated by a referential numeral or character.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

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is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed features, such as, the first direction, the opposite direction of movement, the locked position, and the unlocked positions in claims 1 and 14 must be shown or the features canceled from the claim(s). No new matter should be entered.

The first direction and the opposite direction of movement in claim 1 should be shown by arrows. See 37 CFR 1.84(r). In addition, 37 CFR 1.84(h)(4) states: "A moved position may be shown by a broken line superimposed upon a suitable view if this can be done without crowding; otherwise, a separate view *must* be used for this purpose." (Emphasis added). In the instant case, it is unclear whether Fig. 2 shows the locked or unlocked position. Assuming *arguendo* that Fig. 2 shows the locked position, Applicant is required to show the unlocked position or *vice versa*.

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6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter, such as, “a jam nut engaging portion” in claim 14. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction is required.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-11 and 14-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The meaning of the functional limitations or the meaning of the recitations, such as, “to lock,” “to unlock,” and “locked and unlocked positions” in claims 1 and 14 is unclear since Applicant’s Fig. 2 shows only one position.

It is unclear whether the terms “a first connecting component” and “a second connecting component” in claim 15 refer to the term “a connecting component” in claim 14 or not. See MPEP §§ 608.01(o) and 2173.05(o). Applicant is respectfully urged to identify each claimed element with reference to the drawings.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-11, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann (USP 2,813,733).

Regarding claim 1, Herrmann teaches a tie rod jam nut, comprising:

an elongated tubular body 2 having a first end and a second end (see Attachment), the body 2 having an axial internal bore 4 constructed and arranged to receive a portion of an elongated tie rod 22;

a locking portion 6 connected to the tubular body 2, the locking portion 6 positioned at the first end of the tubular body 2 and having a threaded bore 12 constructed and arranged to threadingly engage an externally threaded portion 40, 32 of a connecting component 36 *non-threadingly* engaged with the tie rod 22, the locking portion 6 having a face portion (at 10 in Fig. 1. See Att.) constructed and arranged to engage a portion 24 of the tie rod 22 in a manner so as to lock the connecting component 36 with respect to the tie rod 22 as the locking portion 6 is rotated in a first direction about the threaded portion 40, 32 of the connecting component 36 and to disengage the same portion 24 of the tie rod 22 so as to unlock the connecting component 36 with respect to the tie rod 22 as the locking portion 6 is rotated in a direction opposite the first direction about the threaded portion 40, 32 of the connecting component 36;

an engagement portion 16 connected to the tubular body 2 and spaced distally from the locking portion 6 toward the second end of the tubular body 2, the engagement portion 16 constructed and arranged to be engaged and rotated so as to



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remotely rotate the locking portion 6 between the locked and unlocked positions. *Ibid.*, col. 1, line 46 through col. 2, line 68, and claims 1-6.

Herrmann teaches the invention substantially as claimed. However, Herrmann's connecting component 36 is *non-threadingly* instead of threadingly engaged with the tie rod 22.

It is common knowledge in the art to change the non-threaded coupling of Herrmann's connecting component and tie rod to threaded coupling in order to connect the connecting component to the tie rod. The threaded coupling is notoriously well known as seen in Herrmann's threaded coupling 12, 32, *etc.*

It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the non-threaded coupling of Herrmann's connecting component and tie rod to threaded coupling in order to connect the connecting component to the tie rod as suggested by common knowledge in the art. The use of threaded coupling would have been an obvious choice in design because the claimed structure and the function it performs is the same as the prior art. *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995).

Regarding claim 2, the engagement portion 16 is positioned at the second end of the tubular body 2.

Regarding claim 3, the engagement portion 16 is positioned proximal a second jam nut 42 of the tie rod 22 when the tie rod jam nut is assembled to the tie rod 22.

Regarding claim 4, the engagement portion 16 is cylindrically shaped for engagement with a wrench. To change the cylindrical shape to hexagonal shape would have been an obvious choice in design because the claimed structure and the function it



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performs are the same as the prior art. See *In re Chu, supra* and “Changes in Shape” in MPEP 2144.04.

Regarding claim 5, the face portion (Att.) of the locking portion 6 lies in a plane perpendicular to an axis of the elongated tubular body 2.

Regarding claims 6-8, Herrmann teaches the engagement portion 16 to be spaced away from the locking portion 6 of the tubular body 2 by at least a certain percentage of a length of the tie rod 22. To change Herrmann’s certain percentage to at least 50%, 70%, or between 70% and 95% of the length of the tie rod would have been an obvious choice in design because the claimed structure and the function it performs are the same as the prior art. See *In re Chu, supra* and “Changes in Size/Proportion” in MPEP 2144.04.

Regarding claims 9 and 10, the tubular body 2, the locking portion 6, and the engagement portion 16 are assembled together as a unitary assembly or in a unitary manner.

Regarding claim 11, Herrmann’s tie rod jam nut comprises the tie rod 22.

12. Claims 14-26 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

13. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Bratz (hexagonal tubular body 13), Krawczak (tubular body 16), Gheddo (Fig. 1), Geisthoff et al. (Fig. 1), Bagnoli (Fig. 6), and Weiste et al. (Fig. 1).

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109.

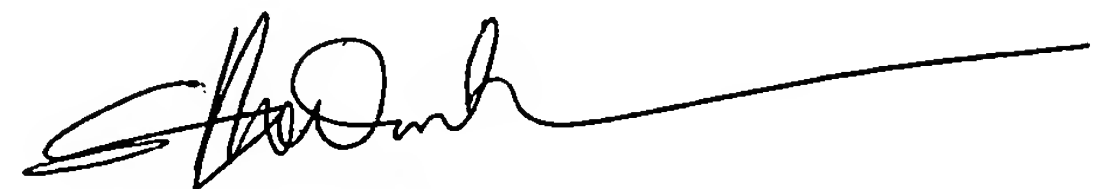
The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

February 16, 2006

A handwritten signature in black ink, appearing to read 'Vinh T. Luong', with a long horizontal line extending to the right.

**Vinh T. Luong**  
**Primary Examiner**

**ATTACHMENT**

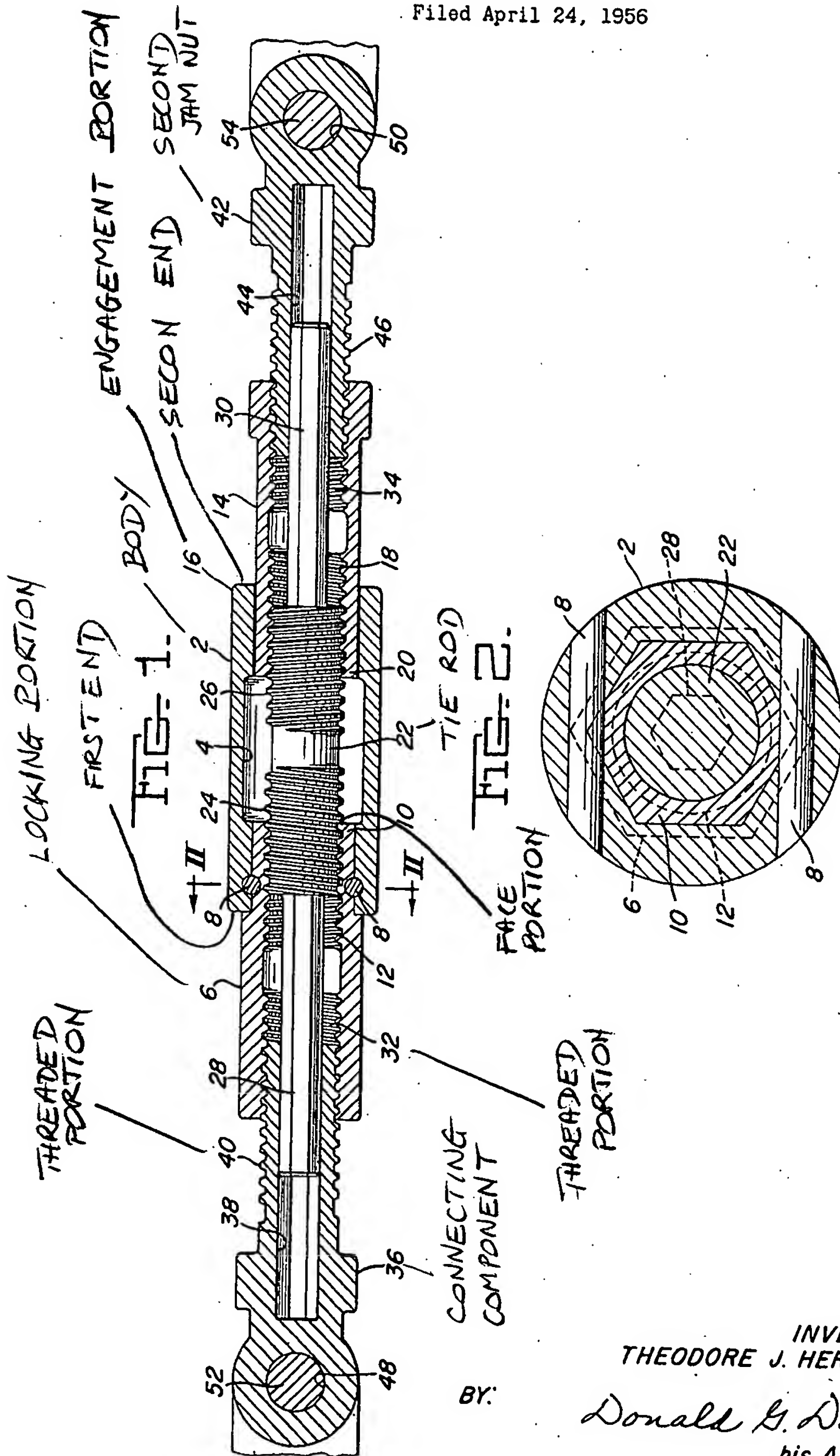
Nov. 19, 1957

T. J. HERRMANN

2,813,733

TURNBUCKLE

Filed April 24, 1956



INVENTOR:  
THEODORE J. HERRMANN,

BY: *Donald G. Dalton*  
his Attorney.